

CLAIMS

For the Examiner's convenience, a list of all claims is included below.

1. (Original) A method, comprising:
receiving an AAL5 CPCS-SDU at a router;
encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;
generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header; and
routing the MPLS packet over an MPLS network.
2. (Original) The method of claim 1, wherein the AAL5 enhanced packet further comprises:
an MPLS label stack;
a control word; and
an AAL5 CPCS-SDU.
3. (Original) The method of claim 2, wherein the router is a label switch router.
4. (Original) The method of claim 2, wherein the router is a label edge router.
5. (Original) The method of claim 2, further comprising:
receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.
6. (Original) A method comprising:
receiving an MPLS packet at a router;

decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header.

7. (Original) The method of claim 6, wherein the AAL5 enhanced packet further comprises:

- an MPLS label stack;
- a control word; and
- an AAL5 CPCS-SDU.

8. (Original) The method of claim 7, wherein the router is a label switch router.

9. (Original) The method of claim 7, wherein the router is a label edge router.

10. (Original) The method of claim 7, further comprising:
generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

11. (Original) A computer readable medium having stored thereon a plurality of instructions, said plurality of instructions when executed by a computer, cause said computer to perform:

- receiving an AAL5 CPCS-SDU at a router;
- encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;
- generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header; and
- routing the MPLS packet over an MPLS network.

12. (Original) The computer-readable medium of claim 11, wherein the AAL5 enhanced packet further comprises:

- an MPLS label stack;
- a control word; and
- an AAL5 CPCS-SDU.

13. (Original) The computer-readable medium of claim 12, wherein the router is a label switch router.

14. (Original) The computer-readable medium of claim 12, wherein the router is a label edge router.

15. (Original) The computer-readable medium of claim 12 having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform:

receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

16. (Original) A computer readable medium having stored thereon a plurality of instructions, said plurality of instructions when executed by a computer, cause said computer to perform:

- receiving an MPLS packet at a router;
- decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
- producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header.

17. (Original) The computer-readable medium of claim 16, wherein the AAL5 enhanced packet further comprises:

- an MPLS label stack;
- a control word; and
- an AAL5 CPCS-SDU.

18. (Original) The computer-readable medium of claim 17, wherein the router is a label switch router.

19. (Original) The computer-readable medium of claim 17, wherein the router is a label edge router.

20. (Currently Amended) The computer-readable medium of claim 17 ~~42~~ having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform:

generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

21. (Original) A system, comprising:

- means for receiving an AAL5 CPCS-SDU at a router;
- means for encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet at the router;
- means for generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header; and
- means for routing the MPLS packet over an MPLS network.

22. (Original) The system of claim 21, wherein the AAL5 enhanced packet further comprises:

- an MPLS label stack;
- a control word; and
- an AAL5 CPCS-SDU.

23. (Original) The system of claim 22, wherein the router is a label switch router.

24. (Original) The system of claim 22, wherein the router is a label edge router.

25. (Original) The system of claim 22, further comprising:

means for receiving secondary SDUs of layer 2 protocols at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

26. (Original) A system comprising:

- means for receiving an MPLS packet at a router;
- means for decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
- means for producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header.

27. (Original) The system of claim 26, wherein the AAL5 enhanced packet further comprises:

- an MPLS label stack;
- a control word; and
- an AAL5 CPCS-SDU.

28. (Original) The system of claim 27, wherein the router is a label switch router.

29. (Original) The system of claim 27, wherein the router is a label edge router.

30. (Original) The system of claim 27, further comprising:

means for generating secondary SDUs of layer 2 protocols from the MPLS packet at the router, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.

31. (Original) A router, comprising:

a processor; and

memory connected to the processor storing instructions for AAL5 enhanced encapsulation executed by the processor;

wherein the processor performs the enhanced AAL5 encapsulation, by

receiving an AAL5 CPCS-SDU;

encapsulating the AAL5 CPCS-SDU into an AAL5 enhanced packet;

generating an MPLS packet from the AAL5 enhanced packet, wherein the AAL5 enhanced packet comprises an ATM header; and

routing the MPLS packet over an MPLS network.

32. (Original) The router of claim 31, wherein the AAL5 enhanced packet further comprises:

an MPLS label stack;

a control word; and

an AAL5 CPCS-SDU.

33. (Original) The router of claim 32, wherein the router is a label switch router.

34. (Original) The router of claim 32, wherein the router is a label edge router.
35. (Original) The router of claim 32, wherein the processor further performs:
receiving secondary SDUs of layer 2 protocols, wherein the layer 2 protocols comprise
Frame Relay, ATM Cell, Ethernet, and SONET.
36. (Original) A router comprising:
a processor; and
memory connected to the processor storing instructions for AAL5 enhanced
decapsulation executed by the processor;
wherein the processor performs the AAL5 enhanced decapsulation, by
receiving an MPLS packet;
decapsulating the MPLS packet when the MPLS packet is an AAL5 enhanced packet;
producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5
enhanced packet comprises an ATM header.
37. (Original) The router of claim 36, wherein the AAL5 enhanced packet further
comprises:
an MPLS label stack;
a control word; and
an AAL5 CPCS-SDU.
38. (Original) The router of claim 37, wherein the router is a label switch router.
39. (Original) The router of claim 37, wherein the router is a label edge router.
40. (Original) The router of claim 37, wherein the processor further performs:

generating secondary SDUs of layer 2 protocols from the MPLS packet, wherein the layer 2 protocols comprise Frame Relay, ATM Cell, Ethernet, and SONET.